

S/N 10/781,339



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Roberto R. Panepucci et al.	Examiner:	Unknown
Serial No.:	10/781,339	Group Art Unit:	2874
Filed:	February 18, 2004	Docket:	1153.099US1
Title:	OPTICAL WAVEGUIDE DISPLACEMENT SENSOR		

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**INFORMATION DISCLOSURE STATEMENT**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicant requests that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicant with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications are no longer required to be provided to the Office. Notification of this change was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004. Thus, Applicant has not included copies of any U.S. Patents or the Published Application cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.


Respectfully submitted,

ROBERTO R. PANEPUCCI ET AL.

By their Representatives,

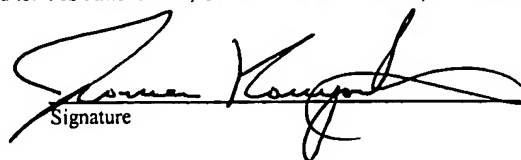
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Date 8-2-2005

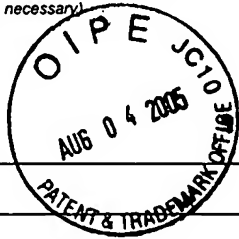
By   
Bradley A. Forrest  
Reg. No. 30,837

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JAMES KANYSIK  
Name

  
Signature

Substitute for form 1449A/PTO  
**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(Use as many sheets as necessary)



Complete if Known

Application Number	10/781,339
Filing Date	February 18, 2004
First Named Inventor	Panepucci, Roberto
Group Art Unit	2874
Examiner Name	Unknown

Sheet 1 of 2

Attorney Docket No: 1153.099US1

### US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
	US-2003/0154771 A1	08/21/2003	de Charmoy, G. H., et al.	03/03/2003
	US-4,242,096	12/30/1980	Oliveira, R., et al.	11/14/1977
	US-4,999,284	03/12/1991	Ward, M. D., et al.	04/06/1988
	US-5,001,053	03/19/1991	Takahashi, M., et al.	09/12/1988
	US-5,135,852	08/04/1992	Ebersole, R. C., et al.	07/25/1989
	US-5,306,644	04/26/1994	Myerholtz, C. A., et al.	04/01/1993
	US-5,541,057	07/30/1996	Bogart, G., et al.	06/10/1993
	US-5,550,063	08/27/1996	Bogart, G.	06/10/1993
	US-5,658,732	08/19/1997	Ebersole, R. C., et al.	03/01/1995
	US-5,705,399	01/01/1998	Larue, R.	05/20/1994
	US-5,719,324	02/17/1998	Thundat, T. G., et al.	06/16/1995
	US-5,756,279	05/26/1998	Ebersole, R. C., et al.	05/09/1997
	US-5,807,758	09/15/1998	Lee, G. U., et al.	07/21/1995
	US-5,814,525	09/29/1998	Renschler, C. L., et al.	01/25/1996
	US-5,945,280	08/31/1999	Fawcett, N. C., et al.	06/07/1995
	US-6,016,686	01/25/2000	Thundat, T. G.	03/16/1998
	US-6,124,765	09/26/2000	Chan, T. C., et al.	10/24/1997
	US-6,203,983	03/01/2001	Quate, C. F., et al.	06/16/1998
	US-6,436,647	08/20/2002	Quate, C. F., et al.	03/19/2001

### OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		"1.2.1 Contact AFM", <u>A Practical Guide to Scanning Probe Microscopy</u> , Chapter 1, Section 1.2.1, Thermo Microscopes website: <a href="http://www.topometrix.com/spmguide/1-2-1.htm">http://www.topometrix.com/spmguide/1-2-1.htm</a> , (Observed October 28, 2002), 3 pgs.	
		BASELT, D. R., et al., "A High-Sensitivity Micromachined Biosensor", <u>Proc. IEEE</u> , 85 (4), (1997), 672-680	
		BASELT, D. R., et al., "Biosensor Based on Force Microscope Technology", <u>J. Vac. Sci. Technol. B</u> , 14 (2), (1996), 789-793	
		BOYD, R. W., et al., "Sensitive Disk Resonator Photonic Biosensor", <u>Applied Optics</u> , 40(31), (2001), 5742-5747	
		BRECHT, A., et al., "Optical Probes and Transducers", <u>Biosensors &amp; Bioelectronics</u> , 10(9-10), (1995), 923-936	
		CARR, D., et al., "Fabrication of Nanoelectromechanical Systems in Single Crystal Silicon Using Silicon on Insulator Substrates and Electron Beam Lithography", <u>J. Vac. Sci. Technol. B</u> , 15(6), (1997), 2760-2763	

EXAMINER

DATE CONSIDERED

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

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**INFORMATION DISCLOSURE  
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<b>Application Number</b>	10/781,339
<b>Filing Date</b>	February 18, 2004
<b>First Named Inventor</b>	Panepucci, Roberto
<b>Group Art Unit</b>	2874
<b>Examiner Name</b>	Unknown

Sheet 2 of 2

Attorney Docket No: 1153.099US1

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (In CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		CARR, D. W., et al., "Measurement of Mechanical Resonance and Losses in Nanometer Scale Silicon Wires", <u>Applied Physics Letters</u> , 75(7), (1999), 920-922	
		CARR, D., et al., "Measurement of Nanomechanical Resonant Structures in Single-Crystal Silicon", <u>J. Vac. Sci. Technol. B</u> , 16(6), (1998), 3821-3824	
		FRITZ, J., et al., "Translating Biomolecular Recognition into Nanomechanics", <u>Science</u> , 288, (2000), 316-318	
		ILIC, B., "Mechanical Resonant Immunospecific Biological Detector", <u>Applied Physics Letters</u> , 77(3), (2000), 450-452	
		ILIC, B., et al., "Ultra-Sensitive Resonant Frequency Based Mass Detector", <u>Proc. Electrochem. Soc.</u> , (2000), 1 pg.	
		KADAR, Z., "Integrated Resonant Magnetic Field Sensor", <a href="http://www.xs4all.nl/~kadzsol/thesis/ch2/chap2.html">http://www.xs4all.nl/~kadzsol/thesis/ch2/chap2.html</a> , Philosophical Dissertation, Chapter 2, "Design Considerations", (1997), 21 pgs.	
		LANG, H., et al., "A Chemical Sensor Based on a Micromechanical Cantilever Array for the Identification of Gases and Vapors", <u>Applied Physics A</u> , 66, (1998), S61-S64	
		LANG, H. P., et al., "Sequential Position Readout From Arrays of Micromechanical Cantilever Sensors", <u>Applied Physics Letters</u> , 72(3), (1998), 383-385	
		MEYER, G., et al., "Novel Optical Approach to Atomic Force Microscopy", <u>Applied Physics Letters</u> , 53(12), (1988), 1045-1047	
		NEWELL, W. E., "Miniaturization of Tuning Forks - Integrated Electronic Circuits Provide the Incentive and the Means for Orders-of-Magnitude Reduction in Size", <u>Science</u> , 161(3848), (1968), 1320-1326	
		PETERSEN, K. E., "Silicon as a Mechanical Material", <u>Proceedings of the IEEE</u> , 70(5), (1982), 420-469	
		SARID, D., In: <u>Scanning Force Microscopy With Applications to Electric, Magnetic and Atomic Forces</u> , Oxford University Press, New York, NY, (1994), 271 pgs.	
		SATOH, K., et al., "Effects of Various Thiol Molecules Added on Morphology of Dendrimer-Fold Nanocomposites", <u>Journal of Colloid and Interface Science</u> , 255, (2002), 312-322	
		SILVERMAN, P. J., "The Intel Lithography Roadmap", <u>Intel® Technology Journal</u> , 6(2), (2002), 55-61	
		THUNDAT, T., et al., "Detection of Mercury Vapor Using Resonating Microcantilevers", <u>Applied Physics Letters</u> , 66(13), (1995), 1695-1697	
		THUNDAT, T., et al., "Thermal and Ambient-Induced Deflections of Scanning Force Microscope Cantilevers", <u>Applied Physics Letters</u> , 64(21), (1994), 2894-2896	

**EXAMINER****DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional) <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1fw

Applicant: Roberto R. Panepucci et al.

Title: OPTICAL WAVEGUIDE DISPLACEMENT SENSOR

Docket No.: 1153.099US1

Filed: February 18, 2004

Examiner: Unknown



Serial No.: 10/781,339

Due Date: N/A

Group Art Unit: 2874

**MS Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

☒ A return postcard.

☒ An Information Disclosure Statement (2 pgs.), Form 1449 (2 pgs.), and copies of 22 cited documents.

If not provided for in a separate paper filed herewith, Please consider this a **PETITION FOR EXTENSION OF TIME** for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

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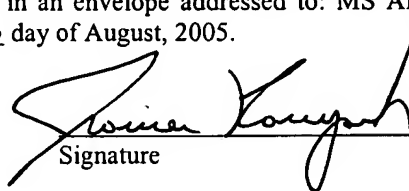
By: 

Atty: Bradley A. Forrest

Reg. No. 30,837

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Name

  
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)